

COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD
REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION

9 VAC 5 CHAPTER 40.
EXISTING STATIONARY SOURCES.

PART II.
Emission Standards.

ARTICLE 48.

Emission Standards for Mobile Equipment Repair and Refinishing Operations in the
Northern Virginia Volatile Organic Compound Emission Control Area (Rule 4-48).

- 9 VAC 5-40-6970. Applicability and designation of affected facility.
- 9 VAC 5-40-6980. Definitions.
- 9 VAC 5-40-6990. Standard for volatile organic compounds.
- 9 VAC 5-40-7000. Standard for visible emissions.
- 9 VAC 5-40-7010. Standard for fugitive dust/emissions.
- 9 VAC 5-40-7020. Standard for odor.
- 9 VAC 5-40-7030. Standard for toxic pollutants.
- 9 VAC 5-40-7040. Compliance.
- 9 VAC 5-40-7050. Compliance schedule.
- 9 VAC 5-40-7060. Test methods and procedures.
- 9 VAC 5-40-7070. Monitoring.
- 9 VAC 5-40-7080. Notification, records and reporting.
- 9 VAC 5-40-7090. Registration.
- 9 VAC 5-40-7100. Facility and control equipment maintenance or malfunction.
- 9 VAC 5-40-7110. Permits.

9 VAC 5-40-6970. Applicability and designation of affected facility.

A. Except as provided in subsection C of this section, the affected facility to which the provisions of this article apply is each mobile equipment repair and refinishing operation. Certain provisions also apply to each person providing or selling affected coatings.

B. The provisions of this article apply only to sources and persons in the Northern Virginia volatile organic compounds emissions control area designated in 9 VAC 5-20-206.

C. The provisions of this article do not apply under any of the following circumstances:

1. The mobile equipment repair and refinishing operation is subject to Article 28 (9 VAC 5-40-3860 et seq.) of 9 VAC 5 Chapter 40 (Emission Standards for Automobile and Light Duty Truck Coating Application Systems).

2. The mobile equipment repair and refinishing operation is subject to Article 34 (9 VAC 5-40-4760 et seq.) of 9 VAC 5 Chapter 40 (Emission Standards for Miscellaneous Metal Parts and Products Coating Application Systems).

3. The person applying the coatings does not receive compensation for the application of the coatings.

4. The mobile equipment repair and refinishing operation uses coatings required to meet military specifications (MILSPEC) where no other existing coating can be used that meets the provisions of this article.

9 VAC 5-40-6980. Definitions.

A. For the purpose of applying this article in the context of the Regulations for the Control and Abatement of Air Pollution and related uses, the words or terms shall have the meaning given them in subsection C of this section.

B. As used in this article, all terms not defined herein shall have the meaning given them in 9 VAC 5 Chapter 10 unless otherwise required by context.

C. Terms defined.

“Airless spray” means a spray coating method in which the coating is atomized by forcing it through a small nozzle opening at high pressure. The coating is not mixed with air before exiting from the nozzle opening.

“Antique motor vehicle” means a motor vehicle, but not a reproduction thereof, manufactured more than 25 years prior to the current year which has been maintained in or restored to a condition which is substantially in conformance with manufacturer specifications.

“Automotive elastomeric coating” means a coating designed for application over surfaces of flexible mobile equipment and mobile equipment components, such as elastomeric bumpers.

“Automotive impact-resistant coating” means a coating designed to resist chipping caused by road debris.

“Automotive jamming clearcoat” means a fast-drying, ready-to-spray clearcoat applied to surfaces such as door jambs and trunk and hood edges to allow for quick closure.

“Automotive lacquer” means a thermoplastic coating applied directly to bare metal surfaces of mobile equipment and mobile equipment components which dries primarily by solvent evaporation, and which is resoluble in its original solvent.

“Automotive low-gloss coating” means a coating which exhibits a gloss reading less than or equal to 25 on a 60 degree glossmeter.

“Automotive multi-colored topcoat” means a topcoat that exhibits more than one color, is packaged in a single container, and camouflages surface defects on areas of heavy use, such as cargo beds and other surfaces of trucks and other utility vehicles.

“Automotive pretreatment” means a primer that contains a minimum of 0.5% acid, by weight, that is applied directly to bare metal surfaces of mobile equipment and mobile equipment components to provide corrosion resistance and to promote adhesion of subsequent coatings.

“Automotive primer-sealer” means a coating applied to mobile equipment and mobile equipment components prior to the application of a topcoat for the purpose of providing corrosion resistance, promoting adhesion of subsequent coatings, promoting color uniformity, and promoting the ability of the undercoat to resist penetration by the topcoat.

“Automotive primer-surfacer” means a coating applied to mobile equipment and mobile equipment components prior to the application of topcoat for the purpose of filling surface imperfections in the substrate; providing corrosion resistance; or promoting adhesion of subsequent coatings.

“Automotive specialty coating” means coatings including, but not limited to, elastomeric coatings, adhesion promoters, low gloss coatings, bright metal trim repair coatings, jamming clearcoats, impact resistant coatings, rubberized asphaltic underbody coatings, uniform finish blenders, weld-through primers applied to automotive surfaces and lacquer topcoats applied to a classic motor vehicle or to an antique motor vehicle.

“Automotive topcoat” means a coating or series of coatings applied over an automotive primer-surfacer, automotive primer-sealer or existing finish on the surface of mobile equipment and mobile equipment components for the purpose of protection or beautification.

“Automotive touch up repair” means the application of automotive topcoat finish materials to cover minor finishing imperfections equal to or less than 1 inch in diameter.

“Classic motor vehicle” means a motor vehicle, but not a reproduction thereof, manufactured at least 15 years prior to the current year which has been maintained in or restored to a condition which is substantially in conformity with manufacturer specifications and appearance.

“Mobile equipment” means equipment which may be driven or is capable of being driven on a roadway including, but not limited to automobiles; trucks, truck cabs, truck bodies and truck trailers; buses; motorcycles; utility bodies; camper shells; mobile

cranes; bulldozers; street cleaners; golf carts; ground support vehicles, used in support of aircraft activities at airports; and farm equipment.

“Mobile equipment repair and refinishing operation” means any facility that applies automotive pretreatment, automotive primer-surface, automotive primer-sealer, automotive topcoat, or automotive specialty or color matched coatings to mobile equipment or mobile equipment components.

9 VAC 5-40-6990. Standard for volatile organic compounds.

A. No owner or other person may apply to mobile equipment or mobile equipment components any automotive pretreatment, automotive primer-surface, automotive primer-sealer, automotive topcoat, or automotive specialty coatings, including any VOC-containing materials added to the original coating supplied by the manufacturer, that contain VOCs in excess of the limits specified in Table 4-48A.

Table 4-48A.

Allowable Content of VOCs in Mobile Equipment Repair and Refinishing Coatings
(as applied)

Weight of VOC per Volume of Coating (minus water and non-VOC solvents)

<u>Coating Type</u>	<u>Limit</u>	
	Pounds per <u>gallon</u>	Grams per <u>Liter</u>
Automotive pretreatment primer	6.5	780
Automotive primer-surfacer	4.8	575
Automotive primer-sealer	4.6	550
Automotive topcoat:		
single stage-topcoat	5.0	600
2 stage basecoat/clearcoat	5.0	600
3 or 4-stage basecoat/clearcoat	5.2	625
Automotive Multi-colored Topcoat	5.7	680
Automotive specialty	7.0	840

B. A person who provides mobile equipment repair and refinishing coatings subject to this section shall provide documentation concerning the VOC content of the coatings calculated in accordance with the following:

1. The mass of VOC per combined volume of VOC and coating solids, less water and exempt compounds shall be calculated by the following equation:

$$VOC = \frac{(W_v - W_w - W_{ec})}{(V - V_w - V_{ec})}$$

where:

VOC = VOC content in grams per liter (g/l) of coating less water and non-VOC solvents,

W_v = Mass of total volatiles, in grams;

W_w = Mass of water, in grams;

W_{ec} = Mass of exempt compounds, in grams;

V = Volume of coating, in liters;

V_w = Volume of water, in liters; and

V_{ec} = Volume of exempt compounds, in liters.

To convert from grams per liter to pounds per gallon (lb/gal), multiply the result (VOC content) by 8.345×10^{-3} (lb/gal/g/l).

2. The VOC content of a multi-stage topcoat shall be calculated by the following equation:

$$VOC_{multi} = \frac{VOC_{bc} + \sum_{i=0}^M VOC_{mci} + 2(VOC_{cc})}{M + 3}$$

where:

VOC_{multi} = VOC content of multistage topcoat, g/l

VOC_{bc} = VOC content of basecoat, g/l

VOC_{mci} = VOC content of the midcoat(s), g/l

VOC_{cc} = VOC content of the clear coat, g/l

M = number of midcoats

C. A person subject to the provisions of this section shall use one or more of the following application techniques to apply any finish material listed in Table 4-48A:

1. Flow/curtain coating;

2. Dip coating;

3. Roller coating;
4. Brush coating;
5. Cotton-tipped swab application;
6. Electrodeposition coating;
7. High volume low pressure (HVLP) spraying;
8. Electrostatic spray;
9. Airless spray; or

10. Other coating application methods that achieve emission reductions equivalent to or greater than those achieved by HVLP or electrostatic spray application methods.

D. The following activities are exempt from the application equipment requirements listed in subsections E and F of this section:

1. The use of airbrush application methods for stenciling, lettering, and other identification markings;
 2. The application of coatings sold in nonrefillable aerosol containers;
- and
3. The application of automotive touch-up repair finish materials.

E. Spray guns used to apply mobile equipment repair and refinishing coatings shall be cleaned by one of the following:

1. An enclosed spray gun cleaning system that is kept closed when not in use;
2. Unatomized discharge of solvent into a paint waste container that is kept closed when not in use;
3. Disassembly of the spray gun and cleaning in a vat that is kept closed when not in use; or
4. Atomized spray into a paint waste container that is fitted with a device designed to capture atomized solvent emissions.

F. The owner of a facility subject to the provisions of this article shall implement the following housekeeping and pollution prevention and training measures:

1. Fresh and used coatings, solvent, and cleaning solvents, shall be stored in nonabsorbent, nonleaking containers. The containers shall be kept closed at all times except when filling or emptying;

2. Cloth and paper, or other absorbent applicators, moistened with coatings, solvents, or cleaning solvents, shall be stored in closed, nonabsorbent, nonleaking containers;

3. Handling and transfer procedures shall minimize spills during the transfer of coatings, solvents, and cleaning solvents; and

4. Ensure that a person who applies mobile equipment repair and refinishing coatings has completed training approved by the manufacturer of the coatings in the proper use and handling of the mobile equipment repair and refinishing coatings, solvents and waste products in order to minimize the emission of air contaminants and to comply with this section.

9 VAC 5-40-7000. Standard for visible emissions.

The provisions of Article 1 (9 VAC 5-40-60 et seq.) of 9 VAC 5 Chapter 40 (Emission Standards for Visible Emissions and Fugitive Dust/Emissions, Rule 4-1) do not apply.

9 VAC 5-40-7010. Standard for fugitive dust/emissions.

The provisions of Article 1 (9 VAC 5-40-60 et seq.) of 9 VAC 5 Chapter 40 (Emission Standards for Visible Emissions and Fugitive Dust/Emissions, Rule 4-1) apply.

9 VAC 5-40-7020. Standard for odor.

The provisions of Article 2 (9 VAC 5-40-130 et seq.) of 9 VAC 5 Chapter 40 (Emission Standards for Odor, Rule 4-2) apply.

9 VAC 5-40-7030. Standard for toxic pollutants.

The provisions of Article 4 (9 VAC 5-60-200 et seq.) of 9 VAC 5 Chapter 60 (Emission Standards for Toxic Pollutants from Existing Sources, Rule 6-4) apply.

9 VAC 5-40-7040. Compliance.

The provisions of subsections B, D, F, and J of 9 VAC 5-40-20 (Compliance) apply. The other provisions of 9 VAC 5-40-20 do not apply.

9 VAC 5-40-7050. Compliance schedule.

Affected persons shall comply with the provisions of this article as expeditiously as possible but in no case later than January 1, 2005.

9 VAC 5-40-7060. Test methods and procedures.

The provisions of 9 VAC 5-40-30 (Emission testing) apply.

9 VAC 5-40-7070. Monitoring.

The provisions of 9 VAC 5-40-40 (Monitoring) apply.

9 VAC 5-40-7080. Notification, records and reporting.

The provisions of 9 VAC 5-40-50 (Notification, records and reporting) apply.

9 VAC 5-40-7090. Registration.

The provisions of 9 VAC 5-20-160 (Registration) apply.

9 VAC 5-40-7100. Facility and control equipment maintenance or malfunction.

The provisions of 9 VAC 5-20-180 (Facility and control equipment maintenance or malfunction) apply.

9 VAC 5-40-7110. Permits.

A permit may be required prior to beginning any of the activities specified below if the provisions of 9 VAC 5 Chapter 50 and 9 VAC 5 Chapter 80 apply. Owners contemplating such action should review those provisions and contact the appropriate regional office for guidance on whether those provisions apply.

1. Construction of a facility.
2. Reconstruction (replacement of more than half) of a facility.
3. Modification (any physical change to equipment) of a facility.
4. Relocation of a facility.
5. Reactivation (restart-up) of a facility.
6. Operation of a facility.

HISTORICAL NOTES:

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